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THE UNIVERSITY OF ALBERTA

SELF-DISCLOSURE OF MALE UNDERGRADUATE STUDENTS

by

(C) ELAINE MARGARET GILCHRIST

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

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.....

Supervisor

.....

.....

Date... April 24, 1984.....

DEDICATION

To my family, especially my Mother and Father,

who taught me that no mountain is too high to climb.

ABSTRACT

A modification of the Jourard Self-Disclosure Questionnaire (JSDQ), and the Bem Sex-Role Inventory (BSRI) were administered to a sample of 96 male undergraduate students at the University of Alberta. The purpose of the study was to examine the following questions:

1. Do males disclose more personal information to females than to males?

2. Do males disclose more to peers than to parents?

3. Does the amount and content of self-disclosure differ according to whether subjects are classified as Masculine, Feminine, Androgynous, or Undifferentiated?

To answer these questions both a two-way and a one-way analysis of variance with repeated measures on one factor were calculated and the resultant means were compared for significance using the Scheffe procedure.

The results of the analyses did not support the hypothesis that males disclose more personal information to females than to males. Rather, the subjects is this study disclosed equal amounts of information to persons of each sex.

The results provided some support for the hypothesis that males disclose more to peers than parents. Subjects disclosed the same amount of total information to parents as to siblings, and significantly more information to peers, for which no preference for male or female friend could be substantiated.

Although no significant differences were found in the amount of self-disclosure engaged in by subjects classified as Masculine, Feminine, Androgynous, or Undifferentiated, preferences were found for both content of disclosure and target person. More disclosure occurred on less personal topics than on those that can be considered to be more personal, and Androgynous subjects emerged as the single group which disclosed equal amounts to all target persons on all topics.

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I. INTRODUCTION

> When a man discloses his experiences to another, fully, spontaneously, and honestly, then the mystery that he was decreases enormously. (Jourard, 1971, p. 5)

Chelune (1979) explained that there has been an increase, in the past ten to fifteen years, in the amount of research on the topic of self-disclosure in interpersonal relationships. He stated that the research originated with Jourard's assertion in the late 1950's that an individual with a mentally healthy personality who is involved in a healthy interpersonal relationship will know, and willingly disclose, his real self to the other person. Alternatively, the individual with a maladjusted personality, according to this theory, does not know or disclose his real self.

The concept of self-disclosure has been defined in the literature in several different ways. According to Jourard (1971), "self-disclosure is the act of making yourself manifest, showing yourself so others can perceive you" (p. 19).

Chelune (1979) explained that this definition is too broad for research purposes as it includes both nonverbal and verbal behaviors. That is, information such as sex, approximate age, weight, and height is revealed nonverbally to observers. However, further information is revealed once verbal interaction occurs between two people. According to Rosenfeld and Civikly (1976), body movements, eye contact, proximity, and most importantly, verbal responses, serve as further communication devices.

Thus, said Chelune (1979), in the psychological and communication literature the class of behaviors involving verbal disclosures has become synonymous with the term "self-disclosure". In his words:

> By limiting the scope of our empirical inquiry of self-revelations to only those disclosures that are communicated verbally to another, we have taken the first step in conceptualizing self-disclosure. (p. 2)

One simple definition of self-disclosure, then, was provided by Cozby (1973) who referred to "any information about himself which Person A communicates verbally to Person B" (p. 73). A more comprehensive definition, however, was offered by Pearce & Sharp (1973) who stated that:

> Self-disclosure occurs when one person voluntarily tells another person things about himself which the other is unlikely to know or to discover from other sources. Since self-disclosure is voluntary, it excludes confessions, or communication behavior in which personal information is elicited from a person by force, threats or use of drugs, and from revealing behavior consisting of unintentional cues (e.g. "Freudian slips" or nonverbal mannerisms) which express something about the person. (p. 414)

The major features of these definitions include the focus on verbal communication and, in the latter definition, the stress that the verbal disclosure must be voluntary.

Research on the topic of sex differences and self-disclosure is fairly recent. Jourard & Lasakow (1958) developed and administered the Jourard Self-Disclosure Questionnaire in order to measure the amount and content of self-disclosure to selected persons. This study and others (Bath & Daly, 1972; Chelune, 1976; Jourard & Richman, 1963;

Kohen, 1975; Komarovsky, 1976; Mulcahy, 1973; Rytting, 1975; Sermat & Smyth, 1973) were primarily concerned with the relationship between anatomical sex and self-disclosure. Generally, it was found that females disclosed more information about themselves than did males.

More current research is taking a new perspective. That is, Chelune (1979) has suggested that the comparison of subjects according to psychological sex (androgyny) "offers an alternative to rigid sex-role assumptions and expected behaviors as a function of being a man or woman" (p. 86). Chelune (1979) believed that with the introduction of a focus on psychological sex, the conclusion that females disclose more than males can not be so easily demonstrated.

Thus, in the past ten to fifteen years, research on the topic of self-disclosure has increased. Chelune (1979) has shown that previous researchers who focused only on anatomical sex and self-disclosure made broad assumptions from a narrow perspective. He suggested that if researchers are to present unequivocal results they must avoid the shortcomings of earlier research. That is, new considerations must be introduced, such as recognition of the importance of, for example, the situation (whether the target person of disclosure is a friend or a stranger), the topic of conversation, and psychological sex.

One of the most popular and most thoroughly researched studies on the topic of self-disclosure was conducted by Komarovsky (1974; 1976). Komarovsky measured the amount of

self-disclosure of male college students and concluded that males disclosed more personal information about themselves in cross- rather than same-sex relationships. That is, greater self-disclosure occurred to females than to males.

A search of the literature revealed that no replication of Komarovsky's study has been conducted. One objective of the present study, then, was to replicate Komarovsky's procedures, as closely as possible, in order to determine whether the results could be repeated. Additionally, the present study addressed the concerns of Chelune (1979) who stated that research must consider more than merely anatomical sex. Thus, a measure of androgyny was administered with the objective of discovering whether self-disclosure differed when subjects were classified androgynously, as well as biologically.

Specifically then, the present study addressed itself to the following three questions:

1. Do males, as demonstrated by Komarovsky (1974; 1976), disclose more to females than to males?

2. Do males, as suggested by Komarovsky (1974, 1976), disclose more to peers than to parents?

3. Does the amount and content of self-disclosure differ according to whether subjects are classified as Masculine, Feminine, Androgynous, or Undifferentiated?

II. REVIEW OF THE RELEVANT RESEARCH

A. The Influence of Society

Derlega & Chaikin (1975) stated that "self-disclosure has implications for anyone interested in how people relate to one another" (p. 3). They explained that in the past several hundred years American man has become increasingly more physically and psychologically lonely. That is, increased mobility, urbanization, and rapid technological change have all caused a decrease in traditional community life and have contributed to greater feelings of anonymity and depersonalization.

However, Derlega & Chaikin explained that people in America are beginning to rebel against this anonymity and depersonalization and are increasingly "striving to regain feelings of intimacy and community with others" (p. 7). For example, the development of sensitivity-training or encounter groups, as well as communes, represent attempts by individuals to develop deep, intimate relationships with others. According to these authors, self-disclosure is the primary means of developing such intimate relationships. The revelation of personal information and the acceptance of another's disclosure permits a relationship to gradually deepen.

B. Research on Self-Disclosure

Origin of Research

Research on the topic of self-disclosure originated with Jourard in the late 1950's (Chelune, 1979; Cozby, 1973; Jourard, 1971). Boredom with traditional university psychology textbooks and an interest in discovering something exciting relevant to the human condition eventually led Jourard to a fascination with self-disclosure. He produced a list of questions he thought were relevant when two people wanted to come to know each other personally. He called this list a Self-Disclosure Questionnaire.

It was Jourard's (1971) belief that if an individual is to have a healthy personality he must engage in self-disclosure. He described a healthy personality as characteristic of a person who knows his "real self" and is able to play his age, sex, and occupational roles effectively. Additionally, he said, such a person will experience satisfaction and growth through his healthy behavior.

According to this theory, one necessary feature of the healthy personality is the ability to know and disclose the real self. Jourard supported this assumption with a reference to the "free association" component of psychoanalytic theory. He said:

> Freud learned to permit his patients to be, through permitting them to disclose themselves

> utterly to another human . . . Freud discovered that when people struggled to avoid being and knowing themselves, they got sick. They could only become well and stay relatively well when they came to know themselves through self-disclosure to another person. (Jourard, 1971, p. 30)

It was Jourard's belief that the same processes which allow an individual to hide his true self from others also function to hide his unconscious from himself. Usually the impulses and memories which an individual is reluctant to admit to others are the same ones he is reluctant to admit to himself. One author stated that:

> As a consequence of continually trying to present a false picture of ourself to others, our own self-image becomes less authentic, and it becomes increasingly difficult for us to distinguish that which we are, from that which we are trying to convince others we are. (Strassberg, et. al., 1977, p. 31)

Overview of Research

Thus, it can be seen that research on the topic of self-disclosure emanated from Jourard's assertion in the late 1950's that "self-disclosure is a symptom of personality health and a means of ultimately achieving healthy personality" (Jourard, 1971, p. 32). Researchers have approached the topic from several perspectives. That is, studies have been conducted to determine the relationship between, for example, self-described personality and self-disclosure (Bath & Daly, 1972), reciprocity and self-disclosure (Certner, 1973; Jourard & Landsman, 1960; Kohen, 1975), social class and self-disclosure (Hawkins, et. al., 1980), age and

self-disclosure (Jourard, 1961), self-concept and self-disclosure (Shapiro & Swenson, 1977), and sex differences and self-disclosure (Chelune, 1976; Komarovsky, 1974, 1976; Mulcahy, 1973; Sermat & Smyth, 1973). It was the intent of the present author, however, to examine only the literature relating to the relationship between sex and self-disclosure.

C. Measurement of Self-Disclosure

Several instruments have been used to assess the degree and nature of self-disclosure (Chelune, 1979; Cozby, 1973; Pedersen & Higbee, 1968). For example, Taylor & Altman (1966) constructed a battery of nearly seven hundred statements which were scaled for intimacy and topical category. The items form a pool from which self-disclosure questionnaires can be constructed.

Pedersen & Breglio (1968) developed the Self-Disclosure Questionnaire (SDQ) which involves actual written disclosure. This instrument consists of five questions, roughly paralleling the major categories measured by the Jourard Self-Disclosure Questionnaire. One question, for example, requires the subject to describe his personality, including consideration of both strengths and weaknesses.

Pedersen & Higbee (1968) explained that two versions of the Social Accessibility Scale described by Rickers-Ovsiankina (1956) and Rickers-Ovsiankina & Kusmin (1958) have often been considered equivalent to standard

measures of self-disclosure, such as the Jourard Self-Disclosure Questionnaire. The Social Accessibility Scale (one version includes twenty-five items and the other version includes fifty items) requires subjects to describe what they "would" disclose (rather than what they "have" disclosed) to three target persons: a stranger, an acquaintance, and a best friend. Pedersen & Higbee compared several measures and concluded that the Social Accessibility Scale should not be considered equivalent as it measures a different variable than do, for example, versions of Jourard's scale.

Jourard (1959) described the initial Self-Disclosure Questionnaire, which consists of fifteen questions. Examples of questions include, "When you were in college, did you participate in any extra-curricular activities, e.g. clubs, dramatics, sports, etc.?" and "Have you ever gone steady, or been engaged? If yes, what was his (their) name(s)?" (p. 429). The administration of this inventory requires that the subject indicate to the investigator, during an interview, the colleagues to whom he had disclosed information about each item.

According to several sources (Chelune, 1976; Cozby, 1973; Pedersen & Higbee, 1968), the Jourard Self-Disclosure Questionnaire (JSDQ) has been the most widely used instrument in the research.

This instrument, described by Jourard & Lasakow (1958), is in the form of a sixty-item questionnaire. Ten items in

each of six general categories of information about the self are rated by participants on a scale of 0, 1, 2 or X. Each item is rated for disclosure to four target persons. The six general categories are Attitudes and Opinions, Tastes and Interests, Work or Studies, Money, Personality, and Body. Examples of specific items included in the category of Attitudes and Opinions are, "What I think and feel about religion; my personal religious views" and "My personal views on sexual morality - how I feel that I and others ought to behave in sexual matters" (p. 92). The rating scale is as follows:

> 0. Have told the person nothing about this aspect of me.
> 1. Have talked in general terms about this item. The other person has only a general idea about this aspect of me.
> 2. Have talked in full and complete detail about this item to the other person. He knows me fully in this respect and could describe me accurately.
> X. Have lied or misrepresented myself to the other person so that he has a false picture of me. (p. 91)

Each of the sixty items is rated according to this scale for disclosure to four target persons: Mother, Father, Closest Male Friend and Closest Female Friend.

Cozby (1973) explained that subsequent investigators have developed variations of the Jourard Self-Disclosure Questionnaire that differ from the original in terms of, for example, length of questionnaire, target persons, instructions, and nature of the items. However, he said, there has been an assumption in the literature that all of these measures can be considered equivalent. Similarly,

Pedersen & Higbee (1968) stated that:

> Various self-disclosure measures have used instruments of different length, have included different target persons, have given different instructions for responding, and have contained different sets of statements. (p. 513)

Cozby, and Pedersen & Higbee stressed the inappropriateness of assuming that the various instruments can be considered equivalent as it has been shown that they measure different variables. Cozby, in fact, recommended that "researchers interested in personality correlates of self-disclosure employ behavioral measures of disclosure" (p. 73). This, in his opinion, would lessen the number of inconsistent findings of researchers who utilize poor paper-and-pencil measures which do not themselves actually relate to real self-disclosure.

D. Research on Self-Disclosure as it Relates to Sex Differences

Early Research

Much of the research on this topic has been concerned with the relationship between anatomical sex and self-disclosure (Bath & Daly, 1972; Chelune, 1976; Jourard & Lasakow, 1958; Jourard & Richman, 1963; Kohen, 1975; Komarovsky, 1976; Mulcahy, 1973; Rytting, 1975; Sermat & Smyth, 1973). Early researchers (Jourard & Lasakow, 1958; Jourard & Richman, 1963) were primarily interested in investigating what information was disclosed by biological

females and males and to whom the self-disclosure was directed (the target person). The results of this research generally indicated that females self-disclosed more than males.

Jourard & Lasakow (1958) administered the original Jourard Self-Disclosure Questionnaire to seventy white, unmarried college students of both sexes. In general, the results of this study showed that females disclosed more information than males and that the target person who received the most disclosed information was the mother of the subject.

In 1963, Jourard & Richman conducted a study to determine whether a dyadic effect operates in relation to self-disclosure in interpersonal relationships. They employed the term "dyadic effect" to "describe the contingency between disclosure output and disclosure input in a subject's relationships with others" (p. 141). To measure disclosure output, a modification of the original Jourard Self-Disclosure Questionnaire was administered. This measure consisted of forty instead of sixty items of personal information, and the rating scale excluded the fourth category (X). To measure input of disclosure, the instructions and wording of this modified questionnaire were appropriately changed to allow for ratings of each of the four target person's self-disclosure on each of the forty items to the subject.

The subjects in this study were fifty-eight unmarried male and fifty-one unmarried female undergraduates. The results indicated that females disclosed personal information about themselves more fully than males. The dyadic effect was observed: a high correlation was found between disclosure output level and disclosure input level between a subject and given target person. Additionally, it was found that females engaged in more disclosure with other females and that males exchanged more information with males. Fathers tended to receive the least disclosure from either their sons or daughters and tended to disclose little to them.

Some authors (Balswick & Peek, 1971; Farrell, 1974; Fasteau, 1972; Goldberg, 1976; Jourard, 1971; Pietropinto & Simenauer, 1977; Pleck, 1974; Sargent, 1977) proposed that society's socialization process is accountable for research results which indicate that females are more communicative of personal information than males. To elaborate, Balswick & Peek (1971) stated that "as sex role distinctions have developed in America, the male sex role, as compared to the female sex role, carries with it prescriptions which encourage inexpressiveness" (p. 363). They explained that from early childhood on, girls are rewarded for gentle, expressive, and responsive behaviors, while boys are encouraged to be courageous, tough, competitive, aggressive, and emotionally unresponsive.

In agreement with this theory, Fasteau (1972) explained that until men can break the pattern in their socialization process and engage in more personal communication with themselves and others, "men's liberation will remain an idea instead of a movement" (p. 16). He suggested that men are conditioned to be active, independent, and nonrevealing of feelings, and that even the few men who have begun to free themselves from these constraints have still not developed the type of intimate communication typical of women.

Male friendships, according to Fasteau, are shallow and tend to focus on an activity and involve competition. He said that "getting together for its own sake would have been frightening ... in short, making ourselves vulnerable" (p. 16). However, he explained that some men will disclose personal information somewhat to women (as compared to men), as women can be considered subordinate, nonthreatening listeners.

Komarovsky (1974; 1976)) attempted to discover the patterns of self-disclosure of male college seniors to each parent, siblings, and closest male and female friends. Each of 62 randomly selected males from the senior class of an Ivy League college in the United States was required to complete a variation of the Jourard Self-Disclosure Questionnaire and to participate in an interview to discuss his motivation for self-disclosure and reserve. Generally, the results demonstrated that the males in the study "experienced psychological intimacy most fully in cross-

rather than same-sex relationships" (p. 685). Komarovsky stated that: "Confirmed is the higher disclosure to one's mother than to the father, and peers than to parents" (p. 685). Generally, the female friend was found to be the primary target of disclosure.

Current Trends

Cozby (1973) suggested that self-disclosure should not be viewed as a unitary construct, and that research should focus on a multidimensional approach. He believed that the behavior of self-disclosure involves three basic parameters: amount of information disclosed, intimacy of information disclosed, and duration of time spent disclosing information.

Chelune (1976) conducted a study using such a multidimensional approach to the concept. However, as well as the three parameters outlined by Cozby (1973), he included attention to two others: affective manner of presentation, and self-disclosure flexibility. Chelune claimed that this approach allowed a more systematic and meaningful interpretation of his results than a unidimensional focus would have permitted. Generally, he found that "females did not disclose a greater percentage of information than males but did disclose more intimate information and at a higher rate than did males" (p. 259).

Several other investigators have found results that contradict the previous findings that females disclose more

than males. Certner (1973) and Kohen (1975), for example, found that undergraduate males and females did not differ with regard to the amount of personal information they revealed to others. In both studies the dyadic effect was observed. As Certner stated: "The mutual exchange of disclosures tended to follow the norm of reciprocity" (p. 292). Thus, according to Chelune (1979):

> Although the majority of research findings support Jourard's original proposition, a substantial number of studies cast doubt on the general notion of sex differences in self-disclosure. (p. 82)

E. Androgyny

Chelune (1979) suggested that there are many variables other than anatomical sex which affect self-disclosure. For example, he said that the comparison of subjects according to their psychological sex (androgyny) "offers an alternative to rigid sex-role assumptions and expected behaviors as a function of being a man or woman" (p. 86). He further explained that "the concept of androgyny defines a model of behavior for men and women that draws from the socially desirable personality characteristics of both sexes" (p. 86).

Bem (1974) explained that an androgynous sex role is one which includes an equal endorsement of what society judges to be desirable masculine and feminine attributes. She claimed that "in a society where rigid sex-role differentiation has already outlived its utility, perhaps

the androgynous person will come to define a more human standard of psychological sex" (p. 162).

It is assumed by this theory that an androgynous individual is mentally healthier than one who adopts a traditional highly sex-typed role. Maracek (1976) agreed that androgynous sex roles allow for greater adaptability and positive mental health. She explained that current developments such as increased lifespan expectancies, female participation in the labor force, early retirement, and increased divorce rates all require women to be competent in both feminine and masculine types of behaviors.

Bem (1974) developed a measure of psychological androgyny which she termed the Bem Sex-Role Inventory (BSRI). The instrument includes three scales: Femininity, Masculinity, and Social Desirability, each of which consists of a list of twenty personality characteristics. She said:

> A characteristic qualified as masculine if it was judged to be more desirable in American society for a man than for a woman, and it qualified as feminine if it was judged to be more desirable for a woman than for a man. (p. 155)

Ten positive and ten negative personality characteristics that were judged to be neutral with regard to sex were combined to form the Social Desirability Scale.

The administration of the inventory requires that the subject indicate on a scale of one to seven (least descriptive to most descriptive) how well each of the sixty personality characteristics describes himself. From these responses four scores can be computed: Masculinity,

Femininity, Androgyny, and Social Desirability. A high Masculinity score indicates the endorsement of a masculine sex role, hence, the rejection of feminine attributes. The reverse is true for those subjects who score high on the Femininity scale. Those subjects who equally endorse masculine and feminine attributes are considered to be Androgynous. Finally, the Social Desirability score is computed by measuring the extent to which a person "describes himself in a socially desirable direction on items that are neutral with respect to sex" (p. 159).

Bem (1981) explained that subsequent study has caused speculation about the adequacy of the Social Desirability score. The most recent scoring manual (1981), therefore, does not provide directions for scoring this component. Instead, it considers the items to be used as fillers, and to be functional only in that they provide a context for the feminine and masculine items. As well, a shortened version (30 items) of the inventory is described.

Kaplan (1977) explained that the study of psychological androgyny has been viewed positively in the literature. She claimed that this research has tremendous potential for the development of radically new models of mental health as well as the re-evaluation of the process of psychotherapy.

However, she said, it is critical to insure that consistency occurs between theoretical and empirical concepts of androgyny. She explained that certain combinations of masculine and feminine traits, rather than

promoting mental health, may serve to "produce dysfunctional, inappropriate, inflexible, and unintegrated patterns of reaction" (p. 225).

She suggested, then, that androgyny should be viewed along a developmental continuum with two main stages: dualistic and hybrid. At the former stage, masculine and feminine traits remain polarized and independent of each other. At the latter stage, "these dichotomies come to co-exist, to be tempered one by the other, to unite in the formation of truly integrated characteristics" (p. 227). For example, rather than being incompatible, anger and love, and dependency and assertiveness would be tempered by one another and would serve to promote mental health.

Jones, Chernovetz, & Hansson (1978) conducted a series of studies along several attitudinal, personality and behavioral dimensions, and were unable to support Bem's contention that androgynous individuals are more adaptable. In fact, their results demonstrated that "the more adaptive, flexible, unconventional, and competent patterns of behavior occurred among more masculine subjects, independent of their gender" (p. 311). Additionally, it was found that feminine subjects, regardless of gender, would like to be more masculine. Thus, this research demonstrated that adaptability and flexibility tended to be associated with masculinity rather than androgyny.

Finally, Pedhazur & Tetenbaum (1979) criticized the construction and psychometric properties of the Bem Sex Role

Inventory. Their research demonstrated that some of the feminine traits utilized in the inventory are low in desirability, while the masculine traits are relatively high in desirability. This, they concluded:

> ...has implications for the total scores on Masculinity and Femininity, in view of people's general tendency to attribute to themselves positive traits, and their reluctance to attribute to themselves negative traits, when they respond to a self-report instrument. (p. 1012)

Generally, then, this research questions the appropriateness of Bem's classification scheme (Masculine, Feminine, Androgynous, and Undifferentiated). As well, a factor analysis revealed that differing dimensions underlie desirability-ratings and self-ratings, as well as male and female self-ratings.

F. Research Relating Androgyny to Self-Disclosure

Chelune (1979) conducted the first study relating androgyny to self-disclosure. He administered the Bem Sex-Role Inventory (BSRI) in conjunction with the original Jourard Self-Disclosure Questionnaire (JSDQ) and his own Self-Disclosure Situations Survey (SDSS). Information from the BSRI and SDSS was used to develop a fourth measure - the Anatomical/Psychological Sex Target Instrument (APSTI). He said:

> ...the APSTI was developed to define sixteen target groups: four psychological sex classifications (masculine, feminine, androgynous, undifferentiated), two anatomical sex classifications (male, female), and two relationship classifications (friend, stranger). (p. 90)

An explanation of the self-disclosure relationships between subject anatomical/psychological sex and target anatomical/psychological sex was the primary goal of the investigation.

According to Chelune, the administration of the APSTI:

> ...requires subjects to report the degree to which they are willing to self-disclose to sixteen different targets: masculine male friend and stranger; feminine male friend and stranger; androgynous male friend and stranger; undifferentiated male friend and stranger; feminine female friend and stranger; masculine female friend and stranger; androgynous female friend and stranger; and undifferentiated female friend and stranger. (p. 98)

Within this framework the SDSS allowed the intervention of further variables for investigation: the intimacy of the topic, ranging from low to high; and expansion of the friend/stranger dichotomy to include the following situations: friend alone, group of friends, stranger alone, and group of strangers.

The subjects for the investigation were one hundred and ten female and eighty-seven male undergraduates. On the basis of their responses on the BSRI, these subjects were classified according to anatomical and psychological sex into one of eight groups: masculine, feminine, androgynous, and undifferentiated males; and masculine, feminine, androgynous, and undifferentiated females. Each subject was then required to complete the APSTI.

Generally, the results demonstrated that the nature of the relationship between the subject and target, that is, whether they are friends or strangers, is an important

consideration in the study of self-disclosure.

More specifically, it was discovered that the most preferred target for males was always a stranger, while females most often expressed preference for a friend. Thus, concluded Chelune, if the target is a stranger, one can accurately predict that males will disclose more than females; however, when the target is a friend the predictability becomes less accurate. That is, disclosure to friends is affected by other factors such as the intimacy of the topic and the context of interaction (whether the friend is alone or is part of a group of friends).

Chelune found that "when the target is specified as a stranger, males clearly disclose more, although not necessarily more intimately, than females" (p. 106). He suggested that this difference can be explained by research on sex-role socialization and self-disclosure avoidance.

Regarding sex-role socialization, Rytting (1976) said that stereotypic sex roles tend to prevail in conversations among strangers. Chelune (1979) explained that "males interacting with strangers disclose more to assert themselves, whereas females disclose less to express their willingness to be nonaggressive, dependent, and polite" (p. 105).

In terms of self-disclosure avoidance, Chelune (1979) explained that research supports the contention that when interacting with strangers, males disclose little intimate information in order to maintain control over the other

person and the situation, while females disclose little to avoid personal hurt that may result from such communication with a stranger. Thus, while males may still disclose impersonal information, females tend to disclose little personal or impersonal information.

The psychological sex of the target also affected self-disclosure. Chelune discovered that androgynous targets, "whether male or female, friend or stranger, are neither the most nor least preferred as individuals to whom others are willing to self-disclose" (p. 108). He suggested that this may be due to the descriptions of these targets, which include both masculine and feminine personality characteristics. That is, such unfamiliar sex-type identifications may make it difficult for the subject to set expectations for an androgynous target and to predict that target's responses.

In this study, males discriminated more in their choice of male than female targets, while females discriminated more in their choice of female than male ones. Chelune believed that this can be interpreted to mean than each sex is more discriminating when disclosing to members of his/her own anatomical group, and less discriminating about the psychological sex-type of targets of the opposite biological sex.

G. Conclusion

To conclude, the past ten to fifteen years has seen an increase in the amount of research being conducted on the topic of sex differences and self-disclosure. Although initial research focused on anatomical sex differences in self-disclosure and generally found that females disclosed more information than males, more current research is taking a new perspective. Chelune (1979) stated the following:

> With the introduction of new considerations - situation, topic, and psychological sex - it becomes clear that the conclusion "females disclose more than males" is inaccurate. (p. 109)

He suggested that if researchers are to present unequivocal results, they must avoid the shortcomings of earlier research. To elaborate, he stated that:

> The more unequivocal the results of any particular investigation are, the greater the likelihood that (1) each subject's anatomical/psychological sex was identified, (2) intimacy was operationally defined in a clear and precise manner, (3) the topics of conversation were controlled, and (4) the relationship between subject and target was specified unambiguously. (p. 109)

Thus, it appears that future research must be more specific than previous studies in that more variables must be controlled. It is not sufficient to investigate the self-disclosure of males and females by categorizing them merely according to biological sex.

III. RESEARCH DESIGN AND METHODOLOGY

A. The Sample

The sample in the present study consisted of 98 volunteers from the University of Alberta. This is an increase of 36 subjects over the number in Komarovsky's (1974; 1976) sample. At the time of participation in the study, all subjects were unmarried, male, and registered in an undergraduate program (see Appendix A for sample breakdown by faculty).

The subjects ranged in age from 17 years to 40 years (Mean=22.10, S.D.=3.93). The sample was stratified in terms of race, year of study, religion, each parent's level of education, and number of siblings. To elaborate, 89% of the volunteers were white and 11% were nonwhite. With reference to year of study at university, over half (63%) of the students had 3 or less years of study at the time of response, while 37% were in their 4th or 5th year (Mean=2.78, S.D.=1.37). 34% of the students listed their religious affiliation as Catholic, 1% as Jewish, 42% as Protestant, and 24% as "Other" (for example: atheist, agnostic).

Each subject was asked to indicate whether each of his parents had equal to or less, or more, than 12 years of formal schooling. Generally it was found that more subjects had mothers with beyond 12 years of education than fathers with more than 12 years. That is, 61% of fathers had 12 or

less years, while only 56% of mothers had 12 or less. Alternatively, 39% of fathers and 44% of mothers had more than 12 years.

Finally, each subject was asked to report the number of brothers and sisters in his family. 22% reported no brother and 28% reported no sister. The number of brothers in any one family ranged from 0 to 6, with 93% of subjects have 0 to 3 brothers (Mean=1.56, S.D.=1.30). The number of sisters in any one family ranged from 0 to 5, with 97% of subjects reporting 0 to 3 sisters (Mean=1.26, S.D.=1.12). Only 5% of subjects were "only" children, reporting no siblings. 56% reported having at least 1 brother and 1 sister.

B. The Instruments

In the present study each subject was required to complete two paper-and-pencil forms: a variation of the original Jourard Self-Disclosure Questionnaire (see Appendix C) and the Bem Sex-Role Inventory. Following is a description of each of these instruments.

Jourard Self-Disclosure Questionnaire (JSDQ)

Some departure from Komarovsky's (1974; 1976) procedure occurred in terms of questionnaire content. In her research, Komarovsky administered a modification of the original Jourard Self-Disclosure Questionnaire (JSDQ). She indicated that her design excluded the ten questions under the topic of "Tastes and Interests" and that six new questions were

added to the existing ten under the topic of "Attitudes and Opinions". However, because she did not elaborate on the nature of the additional questions, the present study involved the administration of the questionnaire with the exclusion of the "Tastes and Interests" component, but without the addition of any new questions for "Attitudes and Opinions". Thus, the questionnaire consisted of fifty instead of fifty-six questions.

Each participant was required to indicate the degree to which he had disclosed information about himself on each of the fifty questions to six target persons. The rating scale was as follows:

> 0. Have told the other person nothing about this aspect of me.
> 1. Have talked in general terms about this item. The other person has only a general idea about this aspect of me.
> 2. Have talked in full and complete detail about this item to the other person. He knows me fully in this respect, and could describe me accurately.
> X. Have lied or misrepresented myself to the other person so that he has a false picture of me.

The six target persons of disclosure were Mother, Father, Closest Brother, Closest Sister, Closest Male Friend, and Closest Female Friend.

Subtotals were obtained by summing the entries for each of the target persons for each of the five topics. Total scores were obtained by summing the scores for each of the target persons for all five topics together. In four cases, where respondents neglected to rate one of the fifty items, the mean score for the other items in the respective

question category for the target person was calculated and the resultant number was entered into the blank.

Reliability. In a study of reliability, the original Jourard Self-Disclosure Questionnaire was administered to seventy white, unmarried college students of both sexes. The 240 entries for each subject were divided in half by the odd-even method. A comparison of the two subtotals revealed a correlation of .94. Thus, it was shown that the subjects were responding consistently across all target persons and all aspects of self (Jourard & Lasakow, 1958). Chelune (1979) stated that the usual reliability reported for the JSDQ is .90 and above.

A Cronbach's Alpha was computed in order to measure the reliability of the instrument used in the present research. A coefficient of .96 for the 53 questionnaires which were fully completed (43 questionnaires had missing data because of lack of brothers and/or sisters and thus could not be included in the analysis), indicates that there is evidence for internal consistency.

Validity. The original sixty-item Jourard Self-Disclosure Questionnaire has been subjected to several studies of validity. Pedersen & Higbee (1968), for example, obtained evidence for convergent validity (high correlation between two measures of the same variable obtained by different methods) and discriminant or divergent validity (low correlation between two measures of different traits obtained with similar methods). Following an analysis of

intercorrelations involving the sixty-item JSDQ and the shortened version (twenty-five items), for both sexes, Pedersen & Higbee reported convergent validity scores ranging from .60 to .72.

Cozby (1973) explained that little evidence has been found to support the predictive validity of the original JSDQ. In fact, he reported that researchers have been unable to find a relationship between the questionnaire and actual disclosure, possibly because the questionnaire requires participants to rate their past self-disclosure to well-known people, whereas behavioral measures of actual self-disclosure require interaction with experimenters or peers unfamiliar to the subject at the time of testing.

Cozby (1973) suggested, then, that the JSDQ should best be viewed as a measure of past disclosure rather than as a predictor of future disclosure, and suggested that self-disclosure should be measured behaviorally rather than by paper-and-pencil techniques.

Bem Sex-Role Inventory (BSRI)

The Bem Sex-Role Inventory (BSRI) was designed as a device for researching psychological androgyny (Bem, 1981). The original inventory (a shortened version is also available) is comprised of sixty personality characteristics which can be divided into three groups.

The first group includes twenty characteristics which are stereotypically considered to be feminine (for example:

affectionate, sympathetic, eager to soothe hurt feelings, and shy). The second group consists of twenty characteristics which are considered to be stereotypically masculine (for example: dominant, willing to take a stand, ambitious, and self-sufficient). The final twenty characteristics are considered to be neutral with respect to sex-typing and are used only as filler items (for example: theatrical, loyal, gullible, and conscientious).

To complete the inventory each respondent was required to indicate on a scale of 1 to 7 (least to most descriptive) the degree to which item was characteristic of his own personality. Femininity and Masculinity scores were obtained by summing the entries for each scale and dividing the total by the number of items rated (twenty for each scale).

Each subject was then classified as Masculine, Feminine, Androgynous, or Undifferentiated according to the "median-split" scoring technique recommended by Bem (1981), Downing (1979), and Spence & Helmreich (1981). That is, the classifications were made on the basis of whether the Femininity and Masculinity scores fell above or below the median of the standardization group. Those subjects who scored below the median in both areas were considered "Undifferentiated", those who scored above the median for both scores were labelled "Androgynous", those who scored low on Femininity and high on Masculinity were termed "Masculine", and finally, those who scored low on Masculinity and high on Femininity comprised the "Feminine"

group.

Reliability. The original Bem Sex-Role Inventory (BSRI) was standardized on a sample of 476 male and 340 female students enrolled in an introductory psychology course at an American university. Bem (1981) provided descriptions of psychometric analyses performed on two samples of undergraduate students. High reliability scores were obtained for internal consistency (coefficients range from .75 to .87) and for test-retest reliability (correlations range from .76 to .89). Additionally, it was demonstrated that the Femininity and Masculinity scores of the inventory were logically and empirically independent of one another (correlations range from -.14 to -.02) (Bem, 1974; 1981).

Validity. Bem (1981) provided explanations of two studies which support the strong validity of the BSRI by upholding the following hypothesis:

> ...nonandrogynous individuals restrict their behavior in accordance with cultural difinitions of desirable behavior for women and men significantly more often than do androgynous individuals. (p. 16)

As well as descriptions of her own studies, Bem included a bibliography of twenty-four studies which support the validity of the instrument by establishing relevant behavioral correlates.

Pedhazur & Tetanbaum (1979) and Jones, Chernovetz, & Hansson (1978) examined the validity of the BSRI as a measure of psychological androgyny. Considered were, for example, low correlations betwen subject's sex and endorsement of specific masculine and feminine subscale

items, lack of an adequate definition of androgyny (the construct the test purports to measure), lack of replications of Bem's original scaling procedures, and contradictory results of three different factor analyses.

C. Data Collection Procedures

During the period from April 1 to July 29, 1983, the investigator approached Winter, Spring, Summer Session I and Summer Session II classes at the University of Alberta, with permission of the instructors, in order to obtain volunteers. A short description of the study was provided orally and each volunteer was given an addressed University of Alberta Campus Mail envelope containing a direction sheet, an information sheet, the Jourard Self-Disclosure Questionnaire, and the Bem Sex-Role Inventory. Each student was asked to complete the documents on his own time and to return them to the investigator by replacing them in the addressed Campus Mail envelope, taking it to any secretary on campus, and asking her to put it in the appropriate mail slot.

184 questionnaires were distributed and 105 were returned (return rate of 57%). 7 of these questionnaires were not included in the data analysis. To elaborate, 5 of the questionnaires were not used because problems were encountered when scoring the BSRI. More specifically, the "median-split" technique recommended in the manual for this instrument (Bem, 1981) requires that subjects be grouped

into one of four androgyny classifications on the basis of where the Masculinity and Femininity scores fall in relation to a given median. However, in 4 cases the Masculinity score, when calculated, was equal to its respective median, while in 1 instance the Femininity score equalled its median. No explanation could be found in the manual or related literature explaining what the correct procedure for scoring would be. Consequently, these questionnaires were eliminated from the analysis. An additional 2 questionnaires were not included as they were returned after the analysis of the already obtained data had been completed.

In 4 cases, where subjects neglected to rate one of the fifty items on the JSDQ, the mean score of the other nine items in the respective question category for the target person was computed and the resultant number was entered into the blank. The JSDQ was administered and scored according to the directions provided by Jourard & Lasakow (1958) and Komarovsky (1974; 1976), and the BSRI was administered and scored according to the directions outlined in the accompanying manual (Bem, 1981). The "median-split" technique was used to determine the psychological class of each individual, as recommended by Bem (1981), Downing (1979), and Spence & Helmreich (1981).

Analysis of Data

One statistical software package was used for the data analysis: the Statistical Package for the Social Sciences

(SPSS) available through Computing Services at the University of Alberta. A two-way analysis of variance with repeated measures on one factor (target person of disclosure) was calculated in order to determine the influence on self-disclosure of: 1) class of psychological sex, as determined by the administration of the BSRI, and 2) target person. Additionally, a one-way analysis of variance with repeated measures was calculated to determine the differences in disclosure to target persons irrespective of psychological sex (see Appendix B for analysis of variance tables). Mean scores were compared using the Scheffe procedure at the .05 and .10 levels of significance. Comparisons at the .10 level were included because the Scheffe test, according to Ferguson (1981), is rigorous and leads to fewer significant results (Type I error).

IV. RESULTS

The results of the study are presented in three main sections corresponding to the research questions. The intent of the questions was to examine, respectively, whether males disclosed more to females than males; whether males disclosed more to peers than to parents; and finally, whether the amount and content of self-disclosure differed among subjects classified as Masculine, Feminine, Androgynous, or Undifferentiated.

A. Question 1

Do males, as demonstrated by Komarovsky (1974; 1976), disclose more to females than to males?

Komarovsky (1974; 1976), following a comparison of mean disclosure scores to all 6 partners for her sample as a whole, concluded that the "closest female friend emerged as the primary confidante in all areas but money" (1976, p. 160). It was explained that the parents were the greater recipients of information about the topic of money as most of the students were financially dependent upon their parents. Komarovsky, however, made her assumption that males disclose more to females than males based only on an interpretation of mean differences. That is, no reference is made to the employment of any inferential statistics. Thus, it is possible that the mean scores, although different, are not significantly different from one another. If this is so, some doubt is cast on the appropriateness of Komarovsky's

conclusions.

Table 1 provides the mean disclosure scores, for the present study, to 4 target persons for the sample as a whole. The four target persons include Mother, Father, Closest Male Friend, and Closest Female Friend. For Table 1 the sample size decreased from 98 to 96 as 2 subjects indicated that they had no father. Because some subjects had no brother and/or sister, separate statistics were calculated including Closest Brother and Closest Sister as target persons. Thus, if siblings were included as target persons the sample size further decreased from 96 to 53. These results, for total disclosure scores (the sum for all 5 topics), are presented in Table 2.

The results of the present study do not support Komarovsky's assertion that males disclose more to females than males. As can be seen in Tables 1 and 2, males did not disclose significantly more information in any of the 5 areas to Mother, Closest Female Friend, and Closest Sister than to Father, Closest Male Friend, and Closest Brother. Additionally, the present findings indicate that the males surveyed did not, as suggested by Komarovsky, disclose significantly more information about Money to their parents, specifically their fathers, than to peers. Instead, it can be stated that the amount of information disclosed on the topic of Money was equal for all target persons.

These findings, then, may indicate that the application of a more detailed statistical analysis is necessary for

Table 1. Comparison of Mean Disclosure Scores† to Four Target Persons for Total Sample

Target Person‡	Topic				
	Attitudes & Opinions	Work or Study	Money	Personality	Body
Mother	9.042 b	10.500 b	9.010 a	6.865 b	7.104 bc*
Father	8.750 b	10.083 b	9.458 a	6.104 b	6.115 c
Closest Male Friend	12.927 a	13.542 a	8.948 a	10.656 a	8.406 ab*
Closest Female Friend	11.927 a	12.396 a	7.948 a	10.823 a	8.594 a

† Maximum possible score for each mean = 20.
‡ N for each target person = 96.
Means within each topic (column) having different letters are significantly different at $p \leq .05$.
* denotes means significantly different at $p \leq .10$.

Table 2. Comparison of Total Mean Disclosure Scores† to Six Target Persons for All Subjects With Siblings

Target Persons‡	Total Mean Score	
Mother	40.075	b
Father	39.396	b
Closest Male Friend	54.396	a
Closest Female Friend	50.981	a
Closest Brother	39.132	b
Closest Sister	36.340	b

† Maximum possible score for each suject = 100.
‡ N for each target person = 53.
Means having different letters are significantly different at $p \leq .05$.

verification of the theory that males disclose more personal information in cross- rather than same-sex relationships as claimed by Fasteau (1972) and Komarovsky (1974; 1976). An alternative suggestion is that the results may differ from Komarovsky's because the present study was not an exact replication. To elaborate, because the JSDQ differed slightly from the variation used by Komarovsky, the results may not be directly comparable.

B. Question 2

Do males, as found by Komarovsky (1974; 1976), disclose more to peers than to parents? A close examination of the mean scores presented in Tables 1 and 2 revealed that, overall, peers were the recipients of more disclosure than parents.

Interestingly, no significant differences were found between the following target persons: Mother and Father, Closest Male Friend and Closest Female Friend, and Closest Brother and Closest Sister. Further study of the mean scores indicated that the total scores for all of Mother, Father, Closest Brother and Closest Sister are not statistically different from one another. Thus, it is clear that, in the present study, subjects disclosed the same amount of total information to parents as to siblings, and significantly more information to peers, for which no preference for male or female friend can be substantiated.

When the scores were broken down by topic and siblings were excluded as target persons, the results were the same for all topics and the total scores, with the exclusion of Money. Males disclosed the same amount of information about Money to all target persons.

C. Question 3

Does the amount and content of self-disclosure differ according to whether subjects are classified as Masculine, Feminine, Androgynous, or Undifferentiated? Although no significant differences were found in the amount of self-disclosure engaged in by the present subjects, differences were found in the content of disclosure to different target persons. Following is an explanation of this.

Amount

Table 3 provides the mean disclosure scores for the total sample (N=96) divided into four groups by psychological sex. A close examination of these scores revealed that there were no significant differences ($p \leq .05$) among any of the Bem classes on any of the five topics or the total score. That is, on each of the five topics measured by the JSDQ (Attitudes and Opinions, Work or Study, Money, Personality, and Body), as well as the total score (all five areas summed) there was no significant difference in the amount of disclosure reported by

Table 3. Comparison of Mean Disclosure Scores† Among BSRI Classes for Each Topic

BSRI Class	Topic				
	Attitudes & Opinions	Work or Study	Money	Personality	Body
Masculine (N = 48)	10.823 a	11.672 a	9.177 a	8.297 a	7.911 a
Feminine (N = 10)	10.050 a	11.175 a	7.450 a	8.750 a	6.425 a
Androgynous (N = 10)	11.700 a	14.600 a	10.475 a	10.775 a	8.500 a
Undifferentiated (N =28)	10.232 a	10.661 a	8.179 a	8.330 a	7.009 a

† Maximum possible score for each mean = 20.
Means within each topic (column) having different letters are significantly different at $p \leq .05$.

Masculine, Feminine, Androgynous, and Undifferentiated subjects.

Content

A close examination of Table 4 revealed that for the sample as a whole, for disclosure to each parent and sibling, greater disclosure occurred on the topics of Attitudes and Opinions, and Work or Study than any of Money, Personality, and Body ($p \leq .05$).

When the scores for the four Bem groups were considered separately, similar patterns emerged (Table 5). There was a consistency in the amount of disclosure across the five topics for Masculine, Feminine, Androgynous, and Undifferentiated subjects. Again, no significant difference resulted between the topics of Attitudes and Opinions and Work or Study, or among Money, Personality, and Body, but there was a tendency for more disclosure on the first two than the last three. However, for Feminine and Androgynous groups, there were no significant differences among Attitudes and Opinions, Money, and Personality ($p \leq .05$; $p \leq .10$).

When the results were further broken down and disclosure on each topic, as well as the total score, were considered separately for each target person by each Bem class, interesting patterns emerged (Tables 6-11). That is, some similarities could be seen across all five topics.

Table 4. Comparison of Mean Disclosure Scores† for Each Topic for Total Sample‡

Topic	Total Mean Score	
Attitudes & Opinions	42.646	a
Work or Study	46.521	a
Money	35.365	b
Personality	34.448	bc
Body	30.219	c

† Maximum possible score for each suject = 100.
‡ N = 96.
Means having different letters are significantly different at $p \leq .05$.

Table 5. Comparison of Mean Disclosure Scores† Among Topics for Each BSRI Class

Topic	BSRI Class			
	Masculine (N=48)	Feminine (N=10)	Androgynous (N=10)	Undifferentiated (N=28)
Attitudes & Opinions	10.823 ab*	10.050 ab	11.700 ab*	10.232 ab*
Work or Study	11.672 a	11.175 a	14.600 a	10.661 a
Money	9.177 bc*	7.450 bc	10.475 b	8.179 bc*
Personality	8.297 c	8.750 abc	10.775 b	8.330 bc
Body	7.911 c	6.425 c	8.500 b*	7.009 c

† Maximum possible score for each mean = 20.
Means within each BSRI class (column) having different letters are significantly different at $p \leq .05$.
* denotes significantly different means at $p \leq .10$.

Table 6. Comparison of Mean Scores† for Disclosure on Attitudes and Opinions for Each BSRI Class

Target Person‡	BSRI Class			
	Masculine (N=48)	Feminine (N=10)	Androgynous (N=10)	Undifferentiated (N=28)
Mother	9.458 b	6.200 b	9.300 a	9.250 bc
Father	9.583 b	5.800 b	11.300 a	7.464 c
Closest Male Friend	12.625 a	13.900 a	13.300 a	12.964 a
Closest Female Friend	11.625 ab	14.300 a	12.900 a	11.250 ab

† Maximum possible score for each mean = 20.
‡ N for each target person = 96.
Means within each BSRI class (column) having different letters are significantly different at $p \leq .05$.

Table 7. Comparison of Mean Scores† for Disclosure on Work or Study for Each BSRI Class

Target Person‡	BSRI Class			
	Masculine (N=48)	Feminine (N=10)	Androgynous (N=10)	Undifferentiated (N=28)
Mother	10.771 a	8.200 b	11.600 a	10.464 ab
Father	10.604 a	8.100 b	13.700 a	8.607 b
Closest Male Friend	13.396 a	13.600 ab	16.800 a	12.607 a
Closest Female Friend	11.917 a	14.800 a	16.300 a	10.964 ab

† Maximum possible score for each mean = 20.
‡ N for each target person = 96.
Means within each BSRI class (column) having different letters are significantly different at $p \leq .10$.

Table 8. Comparison of Mean Scores† for Disclosure on Money for Each BSRI Class

Target Person‡	BSRI Class			
	Masculine (N=48)	Feminine (N=10)	Androgynous (N=10)	Undifferentiated (N=28)
Mother	9.750 a	6.100 a	9.100 a	8.750 a
Father	10.292 a	6.400 a	12.300 a	8.107 a
Closest Male Friend	9.104 a	8.600 a	10.300 a	8.321 a
Closest Female Friend	7.563 a	8.700 a	10.200 a	7.536 a

† Maximum possible score for each mean = 20.
‡ N for each target person = 96.
Means within each BSRI class (column) having different letters are significantly different at $p \leq .05$.

Table 9. Comparison of Mean Scores† for Disclosure on Personality for Each BSRI Class

Target Person‡	BSRI Class			
	Masculine (N=48)	Feminine (N=10)	Androgynous (N=10)	Undifferentiated (N=28)
Mother	6.896 ab	5.400 bc	7.300 a	7.179 ab
Father	6.417 b	3.200 c	9.300 a	5.464 b
Closest Male Friend	9.917 a	12.400 ab	13.300 a	10.357 a
Closest Female Friend	9.958 a	14.000 a	13.200 a	10.321 a

† Maximum possible score for each mean = 20.
‡ N for each target person = 96.
Means within each BSRI class (column) having different letters are significantly different at $p \leq .05$.

Table 10. Comparison of Mean Scores† for Disclosure on Body for Each BSRI Class

Target Person‡	BSRI Class			
	Masculine (N=48)	Feminine (N=10)	Androgynous (N=10)	Undifferentiated (N=28)
Mother	7.688 a	4.400 ab	6.700 a	7.214 a
Father	7.146 a	3.300 b	7.000 a	5.036 a
Closest Male Friend	8.563 a	8.200 ab	9.600 a	7.786 a
Closest Female Friend	8.250 a	9.800 a	10.700 a	8.000 a

† Maximum possible score for each mean = 20.
‡ N for each target person = 96.
Means within each BSRI class (column) having different letters are significantly different at $p \leq .05$.

Table 11. Comparison of Mean Scores† for Total Disclosure for Each BSRI Class

Target Person‡	BSRI Class			
	Masculine (N=48)	Feminine (N=10)	Androgynous (N=10)	Undifferentiated (N=28)
Mother	44.563 a	30.300 bc	44.000 a	42.857 a
Father	44.042 a	26.800 c	53.600 a	34.679 a
Closest Male Friend	53.604 a	56.700 b	63.300 a	52.036 a
Closest Female Friend	49.313 a	61.600 a	63.300 a	48.071 a

† Maximum possible score for each mean = 100.
‡ N for each target person = 96.
Means within each BSRI class (column) having different letters are significantly different at $p \leq .05$.

To elaborate, for all five areas, subjects in all four Bem classes disclosed the same amount of information to Mother as to Father. As well, no differences were found in the amount of disclosure to Closest Male Friend and Closest Female Friend. However, when each topic was considered separately it was clear that the Androgynous subjects disclosed the same amount to all target persons for each topic as well as for the total score.

V. DISCUSSION AND IMPLICATIONS

The present study was designed to examine patterns of self-disclosure of male undergraduate students. 96 subjects completed a variation of the Jourard Self-Disclosure Questionnaire as well as the Bem Sex-Role Inventory. Mean disclosure scores for the sample as a whole, as well for the sample divided into four groups according to psychological sex, were analyzed statistically using a two-way and one-way analysis of variance with repeated measures on one factor. The statistical significance of the resultant mean scores was determined by the use of the Scheffe procedure. Tests were conducted for significance at the .05 and .10 levels.

Three hypotheses were tested. The results of the study did not support the first hypothesis, did support the second one, and partially supported the third one. These results will be discussed separately for each hypothesis as follows.

A. Hypothesis 1

The intention of the analysis of this hypothesis was to examine whether or not males disclose more personal information in cross- rather than same-sex relationships, as suggested by Komarovsky (1974; 1976). The results of the current analysis did not, in fact, support such a contention.

This finding, then, is inconsistent with Fasteau's (1972) explanation of the typical male friendship. In review, Fasteau described male friendships as shallow, the

result of current society's sex-typing process which encourages more expressive personalities for females and more instrumental ones for males. According to Fasteau, males will sometimes engage in more expression of personal information with females, as compared to males. This is because females, consistent with their socialization, tend to be less threatening to the male ego than males as the fear of emotional expressiveness is lessened.

It is possible that the present results differed from Komarovsky's conclusions because of statistical procedure. That is, a close examination of Komarovsky's study revealed that no inferential statistical analyses were conducted. To elaborate, she reported mean scores obtained by her subjects and appears to have based her conclusions on apparent differences, that is, whether one mean was numerically lower or higher than another.

In the present study the means were compared using the Scheffe procedure in order to determine whether they were statistically different from one another at the .05 and .10 levels of significance. As previously stated, there were no significant differences in the amount of personal information disclosed to males versus females. This, then, casts some doubt on the correctness of Komarovsky's assumptions. Would she, if proper statistical analysis of her results had been conducted, have been able to still report differences between sex of target person, and would females still have been the favored target?

However, there are alternative considerations. If, for example, statistical procedure would still have allowed Komarovsky's assumptions, why, then, does the present study provide conflicting results? If consideration is taken of the perspective of Derlega & Chaikin (1975), such a difference in results should be expected. To elaborate, these authors explained that American man is seeking to become less physically and psychologically lonely than present society forces him to be. If Derlega & Chaikin were correct in their assumption, in the mid 1970's, that people are beginning to rebel against this anonymity and depersonalization and are increasingly "striving to regain feelings of intimacy and community with others" (p. 7), then expected would be not only greater amounts of disclosure in 1983 than in 1974 when Komarovsky's study was conducted, but also a greater amount of comfort communicating with each sex, rather than only less threatening listeners.

It appears, then, that males in the present study disclosed equally to target persons of each sex. There are further considerations, however, which cloud the clarity and ease with which such an assumption can be proposed. That is, there are apparent weaknesses in the present study, as well as others that have used the Jourard Self-Disclosure Questionnaire (Jourard & Lasakow, 1958; Jourard & Richman, 1963; and Komarovsky, 1974; 1976).

To elaborate, the definition of each target person needs to be more specific. That is, each subject was

required to indicate how much information is disclosed to Mother, Father, Closest Brother, Closest Sister, Closest Male Friend, and Closest Female Friend. For accurate conclusions to be possible it is necessary to further define each category. For example, are Mother and Father married to one another and living in the same home, or does one parent live elsewhere? How close in age are the target persons and the subject? It is likely that a subject would disclose differently to a brother or sister of similar age than to one where the age spread is great. Is the Closest Female Friend a platonic friend or a girlfriend? How long have the subject and friend known one another? It is likely that a long-time friend would be the recipient of different amounts and types of self-disclosure than would a recently-met lover. Such questions, then, make it clear that for accurate assumptions to be made on the basis of the JSDQ, more information about each target person is necessary.

Finally, it is possible that different results were obtained because of instrumentation. The modification of the JSDQ used in the present study differed slightly from the one Komarovsky administered. This may have affected the comparison of results.

B. Hypothesis 2

Komarovsky (1974; 1976) claimed that the males in her sample disclosed more personal information to their peers than to their parents. The inclusion of Hypothesis 2 in the

present study was to determine whether the subjects in the present sample displayed a similar pattern of disclosure.

In review, the males in the present sample disclosed the same amount of total information to their parents and siblings, but significantly more total information to their peers. No preference was found for the male or female friend as a primary confidante.

When siblings were excluded as target persons, peers still received significantly more disclosure than parents. When siblings were excluded and the mean scores for each topic were considered separately, interesting patterns emerged. That is, for every topic except Money, peers received a significantly greater amount of information than parents. Again, no preference was evident for male or female friend as the primary target. Information about the topic of Money was disclosed equally to all four target persons (parents and peers).

As previously discussed, Komarovsky based her assumptions on a comparison of the magnitude of mean scores. Thus, if her results are scrutinized it can be seen that peers did receive higher mean scores for disclosure than did parents. Further, the female friend received the highest score. It is not known, however, whether these means, if subjected to more rigorous statistical study, would be significantly different from one another. Thus, although Komarovsky's final assertions may be questionable, the following discussion will still address some of the reasons

she provided as explanations for her results.

That no significant difference was observed between the sex of the peers as chosen targets is inconsistent with the theories proposed by Fasteau (1972) and Komarovsky (1974; 1976). This inconsistency was explained in detail for Hypothesis 1.

It is not hard to postulate reasons why peers were greater recipients of disclosure than parents for all topics except Money. As discussed for Hypothesis 1, however, it is important to note that because of the ambiguity of the definition of each target person, any attempt at explanation is merely speculative. To elaborate, it would be expected that university students would spend more time with their friends than their parents and hence would spend more time discussing personal information with them. As well, peers might be considered somewhat less threatening listeners as they tend to be less judgmental than parents. Additionally, the age difference between the subject and his parents might make a difference in terms of their judgment of his disclosure of personal information. That is, older parents might tend to be more critical of the lifestyle of today's youth than would younger parents.

If, as Komarovsky noted in her study, many of the subjects are financially dependent on their parents during their university years, it is logical that peers and parents would be equal recipients of information about Money. Alternatively, it is possible that parents received more

disclosure about their sons' financial status than the other four topics merely because it is one of the less personal topics and thus may not pose as serious a threat to the subjects as some of the more intimate topics might.

Again, in order for more definitive conclusions to be made, it would be necessary to have answers to more specific questions. For example, do the subjects live at home with their parents? If not, do they live alone or at the university residence? Are their closest friends recently acquired or have they known them for many years? Do the subjects have negative or positive self-concepts? It is likely that subjects who feel positively about themselves would feel less threatened by disclosure to peers than those who have a negative self-image.

C. Hypothesis 3

The intention of the final hypothesis was to discover whether the amount and content of self-disclosure differed among subjects when classified by psychological, as opposed to merely biological, sex. That is, were there differences among Masculine, Feminine, Androgynous and Undifferentiated groups, as classified following the administration of the Bem Sex-Role Inventory?

In the present study no significant differences were found among the four groups of subjects for the amount of disclosure on each topic considered separately as well as the total score (all topics summed). Thus, it can be stated

that Masculine, Feminine, Androgynous and Undifferentiated males disclosed equal amounts of personal information to others (all target persons included).

However, although the groups disclosed the same overall amount of information, there were some differences in both the preferred topics of disclosure as well as preferred target persons. Each of these will be discussed separately as follows.

First, when the results were broken down by Bem class and topic a similar pattern emerged for all groups. That is, for all four Bem groups, no significant differences were observed between the amount of disclosure on Attitudes and Opinions, and Work or Studies. Additionally, all four groups disclosed equal amounts of information on the topics of Money, Personality and Body. However, significantly more information was disclosed on the former two topics than the latter three. It is possible that this pattern emerged because of the nature of the topics. That is, the questions under the topics of Attitudes and Opinions, and Work or Studies are of a less personal nature than those contained under Money, Personality and Body. As a result the subjects may have found it easier to disclose information about the first two topics.

Interestingly, a somewhat different pattern emerged when the disclosure by Bem group on each topic was further broken down to consider target person of disclosure also. When the target person was included as a consideration, the

interpretation became somewhat more complex.

For all topics except Money, as well as for the total score, there was an equal amount of disclosure to Mother and Father and an equal amount to Closest Male Friend and Closest Female Friend. For the topic of Money, no significant differences were observed between target persons. Thus, financial status was discussed equally with all target persons.

Some differences occurred between topics in terms of target choice. That is, the most target preference occurred for the topic of Attitudes and Opinions where, for all Bem groups except Androgynous males, peers received significantly more disclosure than parents. The least difference in choice of target person occurred on the topic of Money, for which all targets received equal amounts of disclosure.

Interestingly, Androgynous males were the only Bem group which consistently, for all five topics as well as the total score, disclosed equal amounts of information to each target person. It appears, then, that Androgynous males, more than Masculine, Feminine or Undifferentiated males, found it easier to relate to parents and peers equally on all five topics. If so, and if this is considered desirable and healthy, then it would support Bem's (1974) contentions that androgyny is a worthwhile consideration and that psychological sex does have some merit in terms of the interpretation of behavior.

In the present study, then, three hypotheses were tested. First, it was discovered that males disclosed the same amount of personal information to males as to females. This finding was inconsistent with previous research which suggested that males disclose more in cross- rather than same-sex interaction.

Next, it was found that males disclosed more personal information to their peers than to their parents. This provided support for previous research which claims to have found similar results.

Finally, some support was found for the concept of "androgyny". That is, although the males in the present study, when classified by psychological sex, disclosed the same total amount of information to others, some differences were found for preference of topic and/or target person. Generally, for all Bem groups, a greater amount of disclosure occurred on less personal topics than on those that can be considered more personal. Additionally, Androgynous subjects emerged as the single group which disclosed equal amounts to all target persons (parents and peers) on all topics as well as the total score. For Masculine, Feminine and Undifferentiated subjects, the most preference for target was noted for Attitudes and Opinions, for which a preference emerged for peers over parents. The topic where the least preference was demonstrated was Money, where all groups disclosed equally to all targets.

D. Implications for Further Research

There are weaknesses inherent in the present study which serve to make specific conclusions questionable. The weaknesses include the following:

1. The target persons on the Jourard Self-Disclosure Questionnaire are inadequately defined. Further definition of each is necessary in terms of, for example, level of intimacy, age, and physical proximity to subject.

2. For better statistical comparison of the mean scores of groups classified according to psychological sex, it is necessary to have an equal number of males in each category. That is, in the present study the numbers were as follows: Masculine (N=48), Feminine (N=10), Androgynous (N=10) and Undifferentiated (N=28). As a result, some comparisons of mean scores showed no significance when, with more equal numbers, more significant differences may have resulted.

3. The sample was biased in that it consisted of volunteers rather than a random choice of students. This may have affected the internal validity of the study.

4. The present study involved a version of the Jourard Self-Disclosure Questionnaire which differed slightly from the one Komarovsky used. This made the comparison of results between this study and Komarovsky's difficult.

5. The external validity of the study may have been affected as self-report instruments were used to obtain measures of self-disclosure and psychological sex.

Chelune (1979) explained that if researchers are to present unequivocal results, careful consideration must be taken of many factors, for example, the anatomical/psychological sex of the target and the relationship between the subject and target. Past research has made generalizations that, when subjected to more specific study, become questionable. As Chelune said, conclusions about which sex, if either, discloses more than the other, cannot be so accurately proven. Thus, for more accurate assumptions to be made it is necessary to specifically define the subject, target and topic.

Further research in the area needs to consider using both male and female subjects, should include more specific definitions of the target persons, should provide for interviews in order for the subjects to discuss their motivation for their responses, and should provide some measure of each subject's self-concept. It is suggested that subjects who feel positively about themselves would feel more comfortable disclosing information about themselves than would subjects who feel negatively. Perhaps one of the most important considerations should be the recognition of the importance of the dyadic relationship in which the self-disclosure takes place.

Additionally, it remains to be proven that self-disclosure and androgynous personalities are conducive to mental health as suggested by Jourard (1971) and Bem (1974; 1976). Thus, it can be concluded that the task of

measuring self-disclosure is a complex one and careful consideration will need to be given to many specific factors if researchers are to present accurate conclusions.

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APPENDIX A

SAMPLE BREAKDOWN BY FACULTY

Table A-1. Sample Breakdown by Faculty

Faculty	Number of Students (Total N= 96)
Arts	14
Education	13
Business	4
Science	38
Unknown	27

APPENDIX B

ANALYSIS OF VARIANCE TABLES

Table B-1. Analysis of Variance Summary Table for Total Disclosure Scores for 6 Target Persons by Bem Classification

Source of Variation	SS	DF	MS	F	p
Bem	3221.77	3	1073.92	0.53	0.66
Subject Within	99048.31	49	2021.39		
Total	19795.38	5	3959.08	16.08	0.00
Bem by Total	9963.03	15	664.20	2.70	0.00
Bem by Subject Within	60312.50	245	246.17		

Table B-2. Analysis of Variance Summary Table for Topics by Total Sample

Source of Variation	SS	DF	MS	F	p
Subject Within	88946.50	95	936.28		
Total	16720.50	4	4180.13	39.072	0.00
Total by Subject Within	40653.88	380	106.98		

Table B-3. Analysis of Variance Summary Table for Bem Classification by Attitudes & Opinions

Source of Variation	SS	DF	MS	F	p
Bem	103.31	3	34.44	0.75	0.53
Subject Within	4249.25	92	46.19		
Attitudes & Opinions	1174.80	3	391.60	36.80	0.00
Bem by Attitudes & Opinions	386.02	9	42.89	4.03	0.00
Attitudes & Opinions by Subject Within	2936.67	276	10.64		

Table B-4. Analysis of Variance Summary Table for Bem Classification by Work or Study

Source of Variation	SS	DF	MS	F	p
Bem	582.45	3	194.15	2.95	0.04
Subject Within	6056.82	92	65.84		
Work or Study	793.95	3	264.65	19.20	0.00
Bem by Work or Study	266.09	9	29.57	2.15	0.03
Work or Study by Bem Classification	3804.27	276	13.78		

Table B-5. Analysis of Variance Summary Table for Bem Classification by Money

Source of Variation	SS	DF	MS	F	p
Bem	321.49	3	107.17	1.13	0.34
Subject Within	8760.54	92	95.22		
Money	33.29	3	11.10	0.63	0.60
Bem by Money	211.51	9	24.17	1.36	0.21
Money By Subject Within	4892.18	276	17.73		

Table B-6. Analysis of Variance Summary Table for Bem Classification by Personality

Source of Variation	SS	DF	MS	F	p
Bem	258.83	3	86.28	1.37	0.26
Subject Within	5815.08	92	63.21		
Personality	1759.06	3	586.35	34.89	0.00
Bem by Personality	391.23	9	43.47	2.59	0.01
Personality by Subject Within	4638.56	276	16.81		

Table B-7. Analysis of Variance Summary Table for Bem Classification by Body

Source of Variation	SS	DF	MS	F	p
Bem	159.66	3	53.22	0.77	0.51
Subject Within	6352.52	92	69.05		
Body	526.95	3	175.65	15.97	0.00
Bem by Body	200.31	9	22.26	2.02	0.04
Body by Subject Within	3035.29	276	11.00		

Table B-8. Analysis of Variance Summary Table for Bem Classification by Total Disclosure

Source of Variation	SS	DF	MS	F	p
Bem	5919.41	3	1973.14	1.70	0.18
Subject Within	106648.31	92	1159.22		
Total	15773.27	3	5257.75	20.60	0.00
Bem by Total	6679.44	9	742.16	2.91	0.00
Total by Subject Within	70456.63	276	255.28		

APPENDIX C

JOURARD SELF-DISCLOSURE QUESTIONNAIRE (modification)

DIRECTIONS: The answer sheet below has columns with the headings "Mother," "Father," Closest Brother," Closest Sister," Closest Male Friend," and "Closest Female Friend." You are to read each item on the questionnaire, and then indicate the extent that you have talked about that item to <u>each</u> person; that is, the extent to which you have made yourself known to that person. Use the rating-scale below to describe the extent that you have talked about each item.

Rating-Scale: 0 = Have told the other person nothing about this aspect of me.
1 = Have talked in general terms about this item. The other person has only a general idea about this aspect of me.
2 = Have talked in full and complete detail about this item to the other person. He knows me fully in this respect, and could describe me accurately.
X = Have lied or misrepresented myself to the other person so that he has a false picture of me.

Remember: Rate <u>each</u> item for <u>each</u> of the 6 people. When you are finished, every column in every row should have a rating (0, 1, 2, or X). (see sample item at beginning of questionnaire)

QUESTIONNAIRE AND ANSWER SHEET

Items	Mother	Father	Closest brother	Closest sister	Closest male friend	Closest female friend
Sample: My favorite books.	X	1	2	X	X	2
Attitudes and opinions						
1. What I think and feel about religion; my personal religious views..						
2. My personal opinions and feelings about other religious groups than my own. e.g., Protestants, Catholics, Jews, atheists.						
3. My views on communism.						
4. My views on the present government-the president, government policies, etc.						
5. My views on the question of racial integration in schools, transportation, etc.						

Items (continued)	Mother	Father	Closest brother	Closest sister	Closest male friend	Closest female friend
6. My personal views on drinking.						
7. My personal views on sexual morality-how I feel that I and others ought to behave in sexual matters.						
8. My personal standards of beauty and attractiveness in women - what I consider to be attractive in a woman.						
9. The things that I regard as desirable for a man to be - what I look for in a man.						
10. My feelings about how parents ought to deal with children.						
Work (or studies)						
1. What I find to be the worst pressures and strains in my work.						
2. What I find to be the most boring and unenjoyable aspects of my work.						
3. What I enjoy most, and get the most satisfaction from in my present work.						
4. What I feel are my shortcomings and handicaps that prevent me from working as I'd like to, or that prevent me from getting further ahead in my work.						
5. What I feel are my special strong points and qualifications for my work.						
6. How I feel that my work is appreciated by others (e.g., boss, fellow-workers, teacher, husband, etc.)						
7. My ambitions and goals in my work.						
8. My feelings about the salary or rewards that I get for my work.						
9. How I feel about the choice of career that I have made - whether or not I'm satisfied with it.						
10. How I really feel about the people that I work for, or work with.						
Money						
1. How much money I make at my work, or get as an allowance.						
2. Whether or not I owe money; if so, how much.						
3. Whom I owe money to at present; or whom I have borrowed from in the past.						

Items (continued)	Mother	Father	Closest brother	Closest sister	Closest male friend	Closest female friend
4. Whether or not I have savings, and the amount.						
5. Whether or not others owe me money; the amount, and who owes it to me.						
6. Whether or not I gamble; if so, the way I gamble, and the extent of it.						
7. All of my present sources of income - wages, fees, allowance, dividends, etc.						
8. My total financial worth, including property, savings, bonds, insurance, etc.						
9. My most pressing need for money right now, e.g., outstanding bills, some major purchase that is desired or needed.						
10. How I budget my money - the proportion that goes to necessities, luxuries, etc.						
Personality						
1. The aspects of my personality that I dislike, worry about, that I regard as a handicap to me.						
2. What feelings, if any, that I have trouble expressing or controlling.						
3. The facts of my present sex life - including knowledge of how I get sexual gratification; any problems that I might have; with whom I have relations, if anybody.						
4. Whether or not I feel that I am attractive to the opposite sex; my problems, if any, about getting favorable attention from the opposite sex.						
5. Things in the past or present that I feel ashamed or guilty about.						
6. The kinds of things that just make me furious.						
7. What it takes to get me feeling real depressed and blue.						
8. What it takes to get me real worried, anxious, and afraid.						
9. What it takes to hurt my feelings deeply.						
10. The kinds of things that make me especially proud of myself, elated, full of self-esteem or self-respect.						

Items (continued)	Mother	Father	Closest brother	Closest sister	Closest male friend	Closest female friend
Body						
1. My feelings about the appearance of my face - things I don't like and things that I might like about my face and head - nose, eyes, hair, teeth, etc.						
2. How I wish I looked: my ideals for overall appearance.						
3. My feelings about different parts of my body - legs, hips, waist, weight, chest, or bust, etc.						
4. Any problems and worries that I had with my appearance in the past.						
5. Whether or not I now have any health problems - e.g., trouble with sleep, digestion, female complaints, heart condition, allergies, headaches, piles, etc.						
6. Whether or not I have any long-range worries or concerns about my health, e.g., cancer, ulcers, heart trouble.						
7. My past record of illness and treatment.						
8. Whether or not I now make special efforts to keep fit, healthy, attractive, e.g., calisthenics, diet.						
9. My present physical measurements, e.g., height, weight waist, etc.						
10. My feelings about my adequacy in sexual behavior - whether or not I feel able to perform adequately in sex-relationships.						

REMEMBER: You should have rated each item for each person. All 6 columns should be filled in beside each item.